REMARKS

Claims 1, 2, 4-8 remain pending in this application with claims 4, 5 and 8 being amended and claim 3 being cancelled by this response. Claims 4, 5 and 8 have been amended to correct their dependency in view of the cancellation of claim 3. It is respectfully submitted that no new matter is added by these amendments.

Rejection of Claims 3-6 under 35 U.S.C. 112

Claims 3-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 is cancelled by this response. The dependency of claims 4 and 5 have been amended to no longer depend upon claim 3. Therefore, in view of the cancellation of claim 3 and the amendments to claims 4 and 5, it is respectfully submitted that this rejection is satisfied and should be withdrawn.

Rejection of Claims 1-3, 5 and 7 under 35 U.S.C. 103(a)

Claims 1-3, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fiedziuszko (U.S. Patent 4,453,146) in view of Miller (U.S. Patent 3,582,536).

The present claimed invention provides a waveguide filter and method of manufacturing the waveguide filter including at least one cavity. The cavity is delimited by at least two inductive irises. The filter further includes at least one floating insert placed in one of the inductive irises and supported by at least one block of foam. Independent claims 1 and 7 each contain features similar to those discussed above, and thus all remarks presented herein apply to each of these claims. Independent claim 7 further discloses that at least one block of dielectric foam is placed inside the waveguide and that the block supports at least one metallization which forms at least one floating

insert.

Fiedziuszko and Miller neither disclose nor suggest "at least one floating insert placed in one of the inductive irises" as recited in claim 1 of the present invention.

Fiedziuszko describes a dual mode dielectric filter. The filter comprises cavities, irises, and conductive probes. The conductive probes are placed in a notch at the top of the iris. (Abstract and Fig. 1)

Fiedziuszko neither discloses nor suggests "at least one floating insert placed in one of the inductive irises and supported by at least one block of foam" as recited in claim 1 of the present invention. Fiedziuszko merely discloses a conductive probe placed in a set location, a cylindrical notch cut into the housing of a filter. In contrast, the present claimed invention has a floating insert that does not touch any portion of a waveguide filter and can be positioned in various locations in the waveguide filter. "The coupling with the electric field depends among other things on the position of the insert with respect to the centre of the waveguide and the inclination of the insert with respect to the axis of the guide" (page 3, lines 14-16). The conductive probe of Fiedziuszko is therefore not the same as the floating insert of the present claimed invention. Furthermore, the Office Action correctly admits that Fiedziuszko does not disclose support by a block of foam (page 3). Fiedziuszko is silent regarding foam. Therefore, Fiedziuszko neither discloses nor suggests "at least one floating insert placed in one of the inductive irises and supported by at least one block of foam" as recited in claim 1 of the present invention.

Miller describes a corrugated coaxial cable comprising a foam dielectric sleeve insulating an inner conductor, and a helically corrugated copper outer conductor. (col. 1 lines 1-5, col. 2 lines 20-26).

Miller, similar to Fiedziuszko, neither discloses nor suggests "at least one floating insert placed in one of the inductive irises and supported by at least one block of foam" as recited in claim 1 of the present invention. Miller is also silent regarding a floating insert

and an inductive iris. Furthermore, Miller merely discloses the use of foam to insulate an inner conductor for a coaxial cable. In contrast, the present claimed invention uses the foam to support a floating insert in a waveguide filter. Therefore, Miller neither discloses nor suggests "at least one floating insert placed in one of the inductive irises and supported by at least one block of foam" as recited in claim 1 of the present invention.

The Office Action argues that "it would have been obvious to one of ordinary skill in the art to replace the general dielectric sleeve of Fiedziuszko with the foam dielectric sleeve as taught by Miller" on page 4. The applicant respectfully disagrees. Fiedziuszko describes a dual mode dielectric filter. Miller describes an improved coaxial cable. While Fiedziuszko is concerned with reducing the size of the filter and preserving its electrical characteristics, Miller is concerned with improving the bending life of a coaxial cable. These two patents have two completely unrelated objectives and concern unrelated devices. Additionally, neither Fiedziuszko nor Miller are concerned with the objectives of the present claimed invention, namely proposing "an H-plane filter with inductive irises which exhibits a quasi-elliptic response while retaining the same compactness as a filter having a Chebyshev response" (page 2, lines 4-6).

However, even if the systems of Fiedziuszko and Miller were combined, the combination would neither disclose nor suggest "at least one floating insert placed in one of the inductive irises and supported by at least one block of foam" as recited in claim 1 of the present invention. The combined system would create a dual mode dielectric filter with a conductive probe placed in a notch in the housing of the filter. A foam dielectric sleeve would insulate the conductive probe. In contrast, the present claimed invention has a floating insert held in place by dielectric foam that does not touch any edge of a waveguide filter, thus allowing the insert to "float". Therefore, the combination of Fiedziuszko and Miller, similar to the individual systems, neither discloses nor suggests "at least one floating insert placed in one of the inductive irises and supported by at least one block of foam" as recited in claim 1 of the present invention.

Additionally, claim 7 is further considered patentable as Fiedziuszko and Miller, alone or in combination, neither disclose nor suggest "that the block supports at least one metallization which forms at least one floating insert" as recited in claim 7 of the present invention. An example of metallization is "a deposition of conducting paint done through a mask on which the patterns to be implanted have previously been inscribed" (page 5, lines 25-27). Fiedziuszko and Miller are silent regarding metallization on a foam block. Therefore, Fiedziuszko and Miller neither disclose nor suggest "that the block supports at least one metallization which forms at least one floating insert" as recited in claim 7 of the present invention.

Additionally, the combination of Fiedziuszko and Miller, similar to the individual systems, neither disclose nor suggest "that the block supports at least one metallization which forms at least one floating insert" as recited in claim 7 of the present invention. The combined system is silent regarding a block with metallization that forms a floating insert. Therefore, Fiedziuszko and Miller, when taken alone or in combination, do not disclose or suggest "that the block supports at least one metallization which forms at least one floating insert" as recited in claim 7 of the present invention.

Claim 2 is considered patentable based on its dependence on claim 1. Claim 2 is further considered patentable as both Fiedziuszko and Miller neither disclose nor suggest that "the floating insert is placed nearer to the edge of the iris than to the centre of the iris" as recited in claim 2 of the present invention. Fiedziuszko merely discloses a conductive probe placed in a set location, a cylindrical notch cut into the housing of a filter. In contrast, the present claimed invention has a floating insert that does not touch any portion of a waveguide filter and can be positioned in various locations in the waveguide filter. Miller is silent regarding a floating insert. Fiedziuszko and Miller both do not disclose or suggest a floating insert. Therefore, neither Fiedziuszko nor Miller can either disclose or suggest that "the floating insert is placed nearer to the edge of the iris than to the centre of the iris" as recited in claim 2 of the present invention.

Additionally, the combination of Fiedziuszko and Miller, similar to the individual

systems, neither discloses nor suggests that "the floating insert is placed nearer to the edge of the iris than to the centre of the iris" as recited in claim 2 of the present invention. The combined system would create a dual mode dielectric filter with a conductive probe placed in a notch in the housing of the filter. A foam dielectric sleeve would insulate the conductive probe. In contrast, the present claimed invention has a floating insert held in place by dielectric foam that does not touch any edge of a waveguide filter, thus allowing the insert to "float". The combination of Fiedziuszko and Miller does not disclose a floating insert, therefore, the combination of Fiedziuszko and Miller, similar to the individual systems, neither discloses nor suggests that "the floating insert is placed nearer to the edge of the iris than to the centre of the iris" as recited in claim 2 of the present invention

Claim 3 is cancelled by this response. Therefore, in view of the cancellation of claim 3, it is respectfully submitted that this rejection with respect to claim 3 is moot and should be withdrawn.

In view of the above remarks and amendments to the claims it is respectfully submitted that there is no 35 USC 112 enabling disclosure in Fiedziuszko or Miller, when taken alone or in combination, that would make the present invention as claimed in claims 1 and 7 unpatentable. As claims 2 and 5 are dependent upon claim 1, it is respectfully submitted that they are allowable for the same reasons discussed above regarding independent claim 1. In view of the above remarks it is respectfully submitted that this rejection is satisfied and should be withdrawn.

Claim 8 is indicated as allowable if rewritten in independent form including the features of the base claim. In view of the above remarks concerning claim 7 on which claim 8 depends, it is respectfully submitted that claim 8 is allowable in current form. Thus, in view of the above remarks and amendments to the claims, it is respectfully submitted all claims (1,2, and 4-8) now pending are in condition for allowance.

Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration and allowance are respectfully solicited. If, however, the Examiner is of the opinion that such action cannot be taken, the Examiner is invited to contact the applicant's attorney at the phone number below, so that a mutually convenient date and time for a telephonic interview may be scheduled.

No fee is believed due. However, if a fee is due, please charge the additional fee to Deposit Account 07-0832.

Respectfully submitted,

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